WHAT IS CLAIMED:

1. A method for adaptive channel estimation for a digital wireless rake receiver having a plurality of finger signals comprising the following steps:

calculating pilot integration window as a function of Doppler period;

wherein the Doppler period is inverse of Doppler frequency.

2. The method as recited in claim 1 further comprising the step of calculating a symmetric integration window approximately 13% of the Doppler period.

3. The method as recited in claim 1 further comprising the step of calculating an asymmetric integration window approximately 3% of the Doppler period.

4. The method as recited in claim 1 wherein the pilot integration window is a function of Rician parameter.

5. The method as recited in claim 1 wherein the pilot integration window is a function of interference level.

6. The method as recited in claim 1 wherein a corresponding pilot integration window is calculated separately for each of the plurality of fingers.

7. A digital radio system for receiving a plurality of signals, comprising:

a digital wireless rake receiver having a plurality of finger signals;

means for calculating pilot integration window as a function of Doppler period;

wherein the Doppler period is inverse of Doppler frequency.

8. The digital radio system as recited in claim 7 wherein a symmetric integration window is approximately 13% of the Doppler period.

9. The digital radio system as recited in claim 7 wherein an asymmetric integration window is approximately 3% of the Doppler period.

10. The digital radio system as recited in claim 7 wherein the pilot integration window is a function of Rician parameter.

11. The digital radio system as recited in claim 7 wherein the pilot integration window is a function of interference level.

12. The digital radio system as recited in claim 7 wherein a corresponding pilot integration window is calculated separately for each of the plurality of fingers.

13. A signal processor for a digital wireless receiver having a plurality of signals, the signal processor comprising:

a processing circuit for processing the plurality of signals and providing a processed signal, wherein a pilot integration window is calculated as a function of Doppler period.

14. The signal processor as recited in claim 13 wherein a symmetric integration window is calculated as approximately 13% of the Doppler period.

15. The signal processor as recited in claim 13 wherein an asymmetric integration window is calculated as approximately 3% of the Doppler period.

16. The signal processor as recited in claim 13 wherein the pilot integration window is calculated as a function of Rician parameter.

17. The signal processor as recited in claim 13 wherein the pilot integration window is calculated as a function of interference level.

18. The signal processor as recited in claim 13 wherein a corresponding pilot integration window is calculated separately for each of the plurality of fingers.